

REMARKS

Claims 1 is amended, Claims 2-5 and 8 remain withdrawn, and Claims 10-15 are cancelled. Claims 1, 6, 7, 9 and 16-28 remain subject to examination in the application. No new matter is added by the amendment to the claims.

The Examiner rejected Claims 1 and 27 under 35 U.S.C. § 103(a) as being unpatentable over the U.S. Patent No. 5,293,911 issued to Akeel in view of the U.S. Patent No. 5,249,748 issued to Lacchia et al.

The Examiner stated that the Akeel patent discloses paint spraying apparatus comprising a bell applicator 14 having a paint receptacle and being movable to and from a docking position; a paint canister 12 in the bell applicator connected to the paint receptacle; and a paint filling station having a paint injector 18 attached to the paint filling station, the injector 18 being adapted to be connected to a paint, the filling station being actuatable to move the paint injector to the docking position along a docking axis for engagement with the paint receptacle for filling the paint canister.

The Examiner has abandoned his previous position that the Akeel paint drop cluster 19 is a "paint filling station" and the color drops 20, 20' are "paint injectors". Now the Examiner has identified the check valve 18 on the robot wrist 16 as a "paint injector". However, the Examiner has not identified any part of the Akeel apparatus as corresponding to either the claimed "paint receptacle" or the claimed "paint filling station".

Claims 1 and 27 define the "paint receptacle" as being part of the bell applicator and being connected to the paint canister. Claims 1 and 27 define the "paint injectors" as being attached to the filling station and movable along a docking axis for engagement with the paint receptacle. The Akeel patent shows the robot wrist 16 having the check valve 18 fixed thereto. The wrist 16 is moved to engage the check valve 18 with the fixed color drop 20 at the paint drop cluster 19 (Col. 7, lines 39-44) in order to receive paint through the color drop 20 when the cylinder 22 is activated. Thus, since the Akeel check valve 18 is fixedly mounted on the robot wrist 16, it is not movable along a docking axis for engagement with any portion (the paint receptacle) of the bell applicator. Therefore, the Akeel check valve 18 cannot be the "paint injector" as defined by Applicants' Claims 1 and 27.

Applicants continue to note that the Akeel patent does not show or suggest "said filling station being actuatable to move each of said paint injectors selectively to the docking position along a docking axis for engagement with said paint receptacle for filling said paint canister with paint" as defined by Claim 1, or "moving the one paint injector to the docking position along a docking axis for engagement with the paint receptacle for filling the paint canister with paint" as defined by Claim 27. If the Akeel check valve 18 is a "paint injector", then the Akeel apparatus is missing the claimed "paint receptacle" and the claimed "filling station".

Furthermore, Claim 27 defines a step of "moving the bell applicator to a fixed docking position adjacent the paint filing station". Applicants amended Claim 1 in a similar manner to define the bell applicator as being movable relative to the filling station. Since Applicants' claims define the paint injectors as being attached to the filling station and the Akeel check valve 18 is attached to the robot wrist 16, the Akeel check valve 18 cannot be the claimed paint injectors.

The Examiner stated that the Akeel patent does not disclose an electrostatic painting apparatus and at least two paint injectors. According to the Examiner, the Lacchia et al. patent teaches an electrostatic spray painting apparatus comprising an electrically charged bell applicator B and a product change unit C having paint injectors P1 and P2 for different coating products. The Examiner takes the position that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Akeel by electrically charging the bell applicator to provide electrostatic painting and to have provided two paint injectors for different coating products as taught by Lacchia et al.

The Lacchia et al. patent shows in Fig. 1 a coating product change unit C disposed outside a spray booth Z. The unit C includes a manifold T connected to two different coating product feed circuits by respective valves P1 and P2. The valves P1 and P2 are fixed and do not correspond to the claimed movable paint injectors. If the Examiner is suggesting that one could substitute the valves P1 and P2 for the check valve 18, the resulting combination still would be missing the claimed "paint receptacle" and the claimed "filling station" as explained above.

Furthermore, Applicants' claims define the paint injectors as being selectively movable for engagement with the paint receptacle connected to the paint canister. The valves P1 and P2 are fixed and are not selectively movable. Even if one were to mount the valves P1 and P2 on

the Akeel robot wrist 16 in place of the check valve 18, the valves P1 and P2 would not be selectively movable.

In summary, there is no combination of the Akcel patent and the Lacchia et al. patent that would result in all of the elements and all of the steps of Applicants' claims. Clearly the combination proposed by the Examiner is lacking the paint receptacle, the paint filling station and the paint injectors as claimed.

The Examiner objected to Claims 6, 7, 9, 21-26, and 28 as being dependent upon a rejected base claim, but he indicated that they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In view of the amendment to Claim 1 and the above remarks, Applicants believe that these claims are allowable.

Amended Claim 1 is generic to all of the species identified by the Examiner. For example, Claim 2 depends from Claim 1 and defines the "Species 1 and 2" as shown in Figs. 2 and 3 respectively. The rotatable annular manifold shown in Figs. 2 and 3 has a generally horizontal circular "docking axis" as indicated by the arrows in Figs. 1 and 3 representing motion about a vertical axis. Claim 5 depends from Claim 1 and defines the "Species 3" as shown in Fig. 4. The linear manifold shown in Fig. 4 has a generally horizontal linear "docking axis" as indicated by the arrow 16. Claim 8 depends from Claim 1 and defines the "Species 4" as shown in Fig. 11. The circular manifold shown in Fig. 11 has a generally vertical linear "docking axis" as indicated by the arrow 62. Therefore, Applicants request that Claims 2-5 and 8 be reinstated.

Applicants appreciate the Examiner's statement of allowance for Claims 16-20.

In view of the amendments to the claims and the above arguments, Applicants believe that the claims of record now define patentable subject matter over the art of record. Accordingly, an early Notice of Allowance is respectfully requested.